

COMMONWEALTH OF KENTUCKY  
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

THE APPLICATION OF LEXINGTON-SOUTH	)	
ELKHORN WATER DISTRICT FOR A	)	
CERTIFICATE OF PUBLIC CONVENIENCE	)	CASE NO. 92-099
AND NECESSITY TO UPGRADE ITS	)	
EXISTING SYSTEM AND TO FINANCE	)	

O R D E R

On July 17, 1992, Lexington-South Elkhorn Water District ("South Elkhorn") filed its application for Commission approval of a proposed increase in its rates for water service. Commission Staff, having performed a limited financial review of South Elkhorn's operations, has prepared the attached Staff Report containing Staff's findings and recommendations regarding South Elkhorn's proposed rates. All parties should review the report carefully and provide any written comments or requests for a hearing or informal conference no later than 15 days from the date of this Order.

IT IS THEREFORE ORDERED that all parties shall have 15 days from the date of this Order to provide written comments regarding the attached Staff Report or requests for a hearing or informal conference. If no request for a hearing or informal conference is received, then this case will be submitted to the Commission for a decision.

Done at Frankfort, Kentucky, this 3rd day of September, 1992.

PUBLIC SERVICE COMMISSION

  
For the Commission

ATTEST:

  
Executive Director

COMMONWEALTH OF KENTUCKY  
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

THE APPLICATION OF LEXINGTON-SOUTH )  
ELKHORN WATER DISTRICT FOR A CERTIFICATE )  
OF PUBLIC CONVENIENCE AND NECESSITY TO ) CASE NO. 92-099  
UPGRADE ITS EXISTING SYSTEM; TO FINANCE; )  
AND FOR AUTHORITY TO GENERALLY ADJUST )  
ITS RATES )

STAFF REPORT

September 3, 1992

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STAFF REPORT  
ON  
LEXINGTON-SOUTH ELKHORN WATER DISTRICT  
CASE NO. 92-099

A. Preface

On July 17, 1992, Lexington-South Elkhorn Water District ("LSE") filed an application with the Commission for a Certificate of Public Convenience and Necessity to construct a waterworks improvement project, for approval of its plan of financing and for approval to increase its rates. LSE estimated that its proposed rates would generate approximately \$165,000 annually in additional revenues, an increase of 43.3 percent over reported test-year revenues of \$381,486.

In order to evaluate the requested increase, the Commission Staff ("Staff") chose to perform a limited financial review of LSE's operations for the test period, calendar year 1991. Carl Salyer Combs of the Commission's Division of Rates and Tariffs conducted the review at the offices of LSE in Nicholasville, Kentucky on August 3 and 17, 1992, and is responsible for this Staff Report except for the portion of Section B on operating revenues; Section D, Rate Design; and Appendix A, which were prepared by George Steinmetz of the Commission's Research Division. During the course of the review, LSE was advised that all proposed adjustments to test-year expenses must be supported by some form of documentation, such as an invoice, or that all such adjustments

must be known and measurable. Based upon the findings of this report, Staff recommends that LSE be authorized to increase its annual operating revenues by \$163,411.

#### Scope

The scope of the review was limited to obtaining information to determine whether reported test-period operating revenues and expenses were representative of normal operations. Insignificant or immaterial discrepancies were not pursued and are not addressed herein.

#### B. Revenue Requirements Determination

##### Operating Revenue

In its 1991 annual report, LSE reported revenue from metered water sales in the amount of \$372,409. The billing analysis filed by LSE in cumulative Exhibit B normalized revenues based on existing and proposed rates. On an annual basis existing rates produce revenue in the amount of \$369,929. Based on these rate schedules, Staff has conducted a review of LSE's billing analysis and has normalized test year revenues. Under the existing rate schedule, total revenue from metered water sales per test year customers amounts to \$385,739. With the inclusion of the additional connections, normalized revenue from water sales is \$418,978. LSE reported other operating revenues of \$9,077 for the test period.

Operation and Maintenance Expenses

LSE reported test-period operating expenses of \$445,216 and proposed no adjustments. Staff's adjustments to test-period operations are discussed in the following sections:

Purchased Water Expense

LSE reported test-year purchased water expense of \$214,289 and water loss of 26.4 percent. Based upon information supplied to Staff by LSE's engineers at a follow-up field visit on August 17, 1992, LSE's 1991 water loss should have been 23.4 percent. Based upon test-year sales of 108,280,630 gallons and the Commission's policy of restricting line loss to 15 percent, Staff has determined LSE's allowable test-year purchases to be 127,388,976 gallons.<sup>1</sup> Based upon the adjusted purchases and the current rates charged by its supplier, Kentucky-American Water Company, Staff has calculated a revised purchased water expense of \$184,554 and recommends that amount be included for rate-making purposes.

Contractual Services - Engineering Expense

LSE reported test-year contractual services-engineering expense of \$38,108, an increase of 42.2 percent over the reported 1990 amount. At the follow-up field visit of August 17, 1992, LSE informed Staff that \$4,333 of the test-year total represented a system study on fire demands at a cost of \$2,943 and the preparation of record plans on existing lines at a cost of \$1,390. These costs are of a non-recurring nature but should provide

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<sup>1</sup> 108,280,630 gallons/.85 = 127,388,976 gallons.

benefit to future periods. Therefore, after consulting with the Commission's Engineering Division, Staff recommends that those charges be amortized over a period of ten years.

LSE also informed Staff that \$7,085 in test-year charges were related to this case. Also during the test year, LSE incurred charges of \$3,227 related to Kentucky-American Water Company's ("Kentucky-American") "Jack's Creek Pipeline" cases<sup>2</sup> in which LSE was an intervenor. The Commission's normal practice is to amortize rate-case expense over 3 years and Staff recommends such treatment in this instance.

After deducting \$4,333 of expenses of a non-recurring nature and \$10,312 of expenses related to rate cases, Staff has included annual contractual services-engineering expenses of \$23,463 for rate-making purposes.

Contractual Services - Legal Expense

LSE reported test-year contractual services-legal expense of \$11,487, an increase of 94.7 percent over the reported 1990 amount. LSE informed Staff that \$1,029 in test-year charges were related to

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<sup>2</sup> Case No. 90-249; Application of Kentucky-American Water Company for a Certificate of Public Convenience and Necessity Authorizing the Construction of Approximately 51,900 Feet of 24" Main, 3,250 Feet of 12" Main, With Associated Valves and Fittings, Known as the "Jack's Creek Pipeline," Order dated March 27, 1991.

Case No. 91-359; Application of Kentucky-American Water Company for a Certificate of Public Convenience and Necessity Authorizing the construction of Approximately 49,000 Feet of 24" Main, 400 Feet of 12" Main, 240 Feet of 8" Main, With Associated Valves and Fittings, Known as the "Jack's Creek Pipeline," Order dated April 17, 1992.

this case. Also during the test year, LSE incurred charges of \$4,468 related to the aforementioned Kentucky-American "Jack's Creek Pipeline" cases. Again, Staff recommends that such expenses be amortized over 3 years. After deducting \$5,497 of expenses related to rate cases, Staff has included annual contractual services-legal expenses of \$5,990 for rate-making purposes.

Contractual Services-Other Expense

LSE reported test-year contractual services-other expense of \$63,943, an increase of 37.2 percent over the reported 1990 amount. Of the reported test-year amount, \$26,958 represents meter reading, meter testing and EPA monitoring expenses. The remaining \$36,985 represents repairs and maintenance expense. The 1989 repairs and maintenance portion totaled \$26,675 while the 1990 portion totaled \$25,340. LSE informed Staff that test-year repairs and maintenance expense was unusually high due to a higher number of line breaks than normally experienced and to repairs to a faulty altitude valve which had caused a storage tank to overflow.

For rate-making purposes, Staff recommends adjustments to test-year reported expenses when such expenses are not representative of normal operations. Since test-year repairs and maintenance expenses are unusually high, Staff recommends including an average of the 1989 and 1990 amounts for rate-making purposes. The 2-year average repairs and maintenance expense of \$26,008<sup>3</sup> added to the aforementioned test-year expense of \$26,958 (related

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<sup>3</sup>  $\$26,675 + \$25,340 + \$52,015/2 = \$26,008$

to meter testing, etc.) yields a total of \$52,966 and that amount has been included for rate-making purposes.

Amortization Expense

As mentioned previously in the section on contractual services-engineering expense, Staff recommended amortizing \$4,333 of expenses of a non-recurring nature over a period of ten years which yields an annual expense of \$433. In that same section, Staff recommended amortizing \$10,312 of rate-case expense over 3 years which results in an annual amount of \$3,437. Also, in the section on contractual services-legal expense, Staff recommended amortization of \$5,497 of rate-case expense over 3 years which results in an annual amount of \$1,832. Therefore, Staff recommends inclusion of total amortization expense of \$5,702<sup>4</sup> for rate-making purposes.

Operations Summary

Based on the recommendations of Staff contained in this report, LSE's operations are as follows:

	<u>Test Year Actual</u>	<u>Recommended Adjustments</u>	<u>Test Year Adjusted</u>
OPERATING REVENUES:			
Water Sales	\$ 372,409	\$ 33,462	\$ 418,978
Other Revenues	9,077	-0-	9,077
Total Oper. Rev.	\$ 381,486	\$ 33,462	\$ 428,055
OPERATING EXPENSES:			
Commissioners' Salaries	\$ 9,000	\$ -0-	\$ 9,000
Purchased Water	214,289	( 29,735)	184,554
Materials & Supplies	7,800	-0-	7,800
Contractual Serv.-Eng.	38,108	( 14,645)	23,463

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<sup>4</sup> \$433 + \$3,437 + \$1,832 = \$5,702



Contractual Serv.-Acct.	3,164	-0-	3,164
Contractual Serv.-Legal	11,487	( 5,497)	5,990
Contractual Serv.-Mgmt.			
Fees	33,703	-0-	33,703
Contractual Serv.-Other	63,943	( 10,977)	52,966
Rent Expense	4,200	-0-	4,200
Insurance	3,924	-0-	3,924
Bad Debts	239	-0-	239
Miscellaneous	9,946	-0-	9,946
Depreciation	44,928	-0-	44,928
Amortization	-0-	5,702	5,702
Taxes Other than Income	485	-0-	485
Total Operating Expense	\$ 445,216	\$( 55,152)	\$ 390,064
Operating Income	( 63,730)	88,614	37,991
Other Income	8,200	-0-	8,200
Income Available for Debt Service	<u>\$( 55,530)</u>	<u>\$ 88,614</u>	<u>\$ 46,191</u>

### C. Revenue Requirements Determination

Staff has calculated LSE's annual debt service to be \$174,668.<sup>5</sup> This includes existing debt and the proposed annual debt payment related to the proposed construction. In the event that approval for any portion of the construction is not obtained, the recommendations contained herein related to financing and expenses for the construction would change accordingly. Assuming the construction is approved, Staff recommends that the additional

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<sup>5</sup> 5-year average of interest payments due (current bonds)	\$ 6,640
5-year average of principal payments due (current bonds)	6,400
5-year average of interest payments due (KIA loan)	113,737
5-year average of principal payments due (KIA loan)	47,891
Total of 5-year average of P&I payments due	<u>\$174,668</u>

debt be included in revenue requirements in order to fund the proposed construction. LSE's adjusted operations reflect \$46,191 in income available for debt service which results in a debt service coverage ("DSC") ratio of .26x. Staff is of the opinion that LSE's current rates are inadequate and will not allow for payment of operating expenses and debt service requirements. In cases involving water districts, the Commission's normal practice is to allow a 1.2 DSC which provides a 20 percent margin above annual principal and interest requirements. In its application, LSE did not include a provision for a 20 percent margin above its annual principal and interest requirements. However, in a subsequent communication, LSE informed Staff that it desired to have the 20 percent margin included in the calculation of revenue requirements. In this instance, Staff is of the opinion that LSE should be granted an increase in revenues sufficient to produce a DSC ratio of 1.2x. Therefore, Staff recommends an increase in annual revenues of \$163,411 calculated as follows:

1.2 DSC (1.2 x \$174,661)	\$209,602
Adjusted Operating Expense	390,064
Total Revenue Requirement	<u>\$599,666</u>
LESS:	
Normalized Test-Year Revenues	428,055
Other Income	8,200
Increase Required	<u>\$163,411</u>

D. Rate Design

LSE has proposed a \$2 monthly charge for those customers who live within 500 feet of a fire hydrant. LSE states that this charge will recover the costs imposed on the utility by the demands

and facility requirements associated with providing fire service. There is insufficient cost support provided to support this charge. Therefore, Staff recommends that it not be approved. No revenue from this charge will be included in meeting revenue requirements. Although the new rate is being denied, LSE is not precluded from refiling to seek approval of this charge.

In its application, LSE filed three different versions of the rate schedule to meet the costs of the construction of the system expansion and water storage addition to the system. The first proposed new rate schedule is an across the board increase of 32 percent with the resulting rates rounded to the nearest penny. The second proposed rate schedule has different percentage increases in the various rate increments in order that the high users on the system bear an increasing cost for their higher demand on the system.

The third version of the proposed rate increase has been modified to provide a schedule with the fourth rate increment equal to the sixth rate increment of their declining block structure.

LSE has chosen the second version to be the basis of its rate increase request. The reasoning behind this is that the effects of the increase should be less on the smallest users. Also, the flatter rate schedule would encourage efforts for conservation by the heavier users which would have the effect of lowering the peak demands on the distribution system, with any reduction in peak


demand lessening the need for future upgrades to the distribution system.

Staff believes that all the customers will benefit from the new storage capacity on the system, and it believes that the minimum bill should increase the same percentage as the increase in revenues.

As there has been a recent large increase in the average usage on the system the last 2 years, a flatter rate schedule is needed to encourage efforts for conservation by the heavier users. This results in the last 3 steps of the declining block being increased at a greater percentage than the first 3 rate increments of the rate schedule.

Staff believes this way of handling the rate increase will attain a more equitable distribution of costs, promote water conservation, and will be in the best interests of both LSE and its customers. Furthermore, it will provide the revenues needed to meet the debt service coverage and the operating expenses.

E. Signatures

  
Prepared By: Carl Combs  
Public Utility Financial  
Analyst  
Water and Sewer Revenue  
Requirements Branch  
Rates and Tariffs Division

Prepared By: George Steinmetz  
Public Utility Rate Analyst  
Communications, Water and  
Sewer Rate Design Branch  
Research Division

APPENDIX A  
TO STAFF REPORT CASE NO. 92-099

Staff recommends the following rate be prescribed for customers of Lexington-South Elkhorn Water District.

5/8 Inch x 3/4 Inch Meters

Monthly Rates

First 2,000 gallons  
Next 2,000 gallons  
Next 2,000 gallons  
Next 10,000 gallons  
Next 8,000 gallons  
Over 24,000 gallons

\$ 16.55 Minimum Bill  
4.25 per 1,000 gallons  
3.88 per 1,000 gallons  
3.70 per 1,000 gallons  
3.60 per 1,000 gallons  
3.25 per 1,000 gallons

1 Inch Meters

First 10,000 gallons  
Next 6,000 gallons  
Next 8,000 gallons  
Over 24,000 gallons

\$ 47.61 Minimum Bill  
3.70 per 1,000 gallons  
3.60 per 1,000 gallons  
3.25 per 1,000 gallons

2 Inch Meters

First 24,000 gallons  
Over 24,000 gallons

\$ 98.61 Minimum Bill  
3.25 per 1,000 gallons